

MULTI-CD CONTROL
FM/AM TUNER

SYNTHONISEUR FM/AM DE COMMANDE
DE MULTI-CD-LECTEUR

SUPER TUNER II



OWNER'S MANUAL MODE D'EMPLOI

Thank you for purchasing this PIONEER product.
Before attempting operation, be sure to read this
manual.

Nous vous remercions d'avoir acheté cet appareil
PIONEER. Avant de l'utiliser, prendre soin de lire
ce manuel.



 **PIONEER**

DEH-TM300

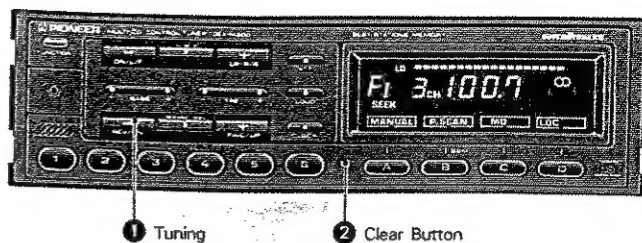
Features

- Built-in highly sensitive "Super Tuner III" for automatic control of stereo separation, muting, and frequency characteristics to match the strength of the FM signal.
- The Best Stations Memory automatically memorizes the six best (strongest) stations in the six preset buttons in the order of their strength.
- Versatile tuning system (preset, preset scan, seek, manual).
- Detachable Controller protects against theft.
- Fader Control function for 2-amp 4-speaker systems.
- Detachable controller extension kit cable (option) makes it possible to install a control panel anywhere in the vehicle. This option also makes it possible to install the main unit beneath a seat as a hideaway unit.
- Centralized control of programmed play, random play, track scan and other functions when a Multi-Play CD Player (option) is included in the system.

Important

The serial number of this device is located on the bottom of the unit. For your own security and convenience, be sure to record this number on the enclosed warranty card.

Changing the Tuning Steps



Changing the Tuning Steps

The unit is shipped from the factory preset for 10 kHz steps in AM and 0.2 MHz steps in FM. The following procedure should be used for applications outside of North America, Central America and South America to change the tuning steps and frequency ranges.

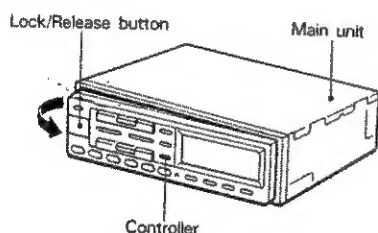
1. Turn the ignition switch off.
 2. While pressing both the right and the left sides of Button ①, turn the ignition switch on. It should be noted that changing the tuning steps also deletes frequencies stored in the tuning memories.
- Pressing Button ② and changing the vehicle's battery set the tuning steps and frequency range settings to their initial setting.

	Specification	Initial setting	New Setting
AM	Tuning steps	10 kHz steps	9 kHz steps
	Frequency range	530—1,620 kHz	531—1,602 kHz
FM	Tuning steps	0.2 MHz steps	50 kHz steps
	Frequency range	87.9—107.9 MHz	87.5—108 MHz

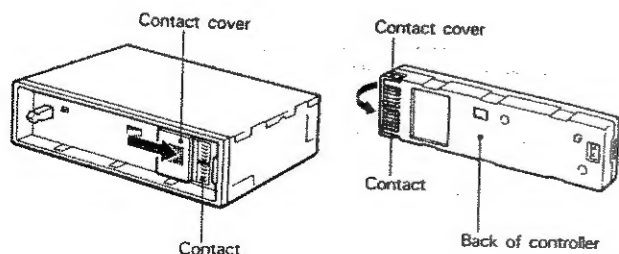
Using the Detachable Controller

Detaching the Controller

1. Press the Lock/Release button and the left side of the controller will pop up from the main unit.

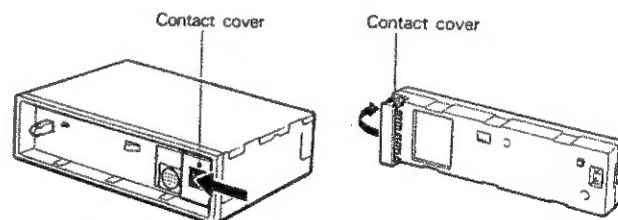


2. Pull the left side of the controller out to remove it from the main unit.
3. Close the protective covers over the contacts of both the main unit and the controller.

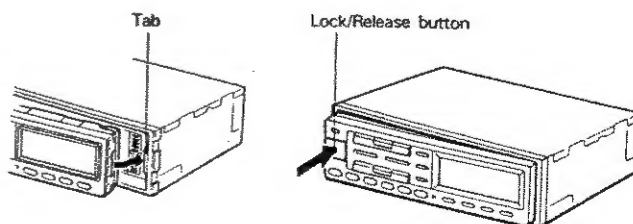


Replacing the Controller

1. Move the protective covers covering the contacts of the main unit and the controller so that the contacts are exposed.



2. Position the controller so that the tab on the right side of the main unit enters into the groove of the controller, and swing the left side of the controller back into the front of the main unit. When the controller is in the correct position, be sure to press the Lock/Release button to lock the controller in place.



Adjusting Volume and Tone

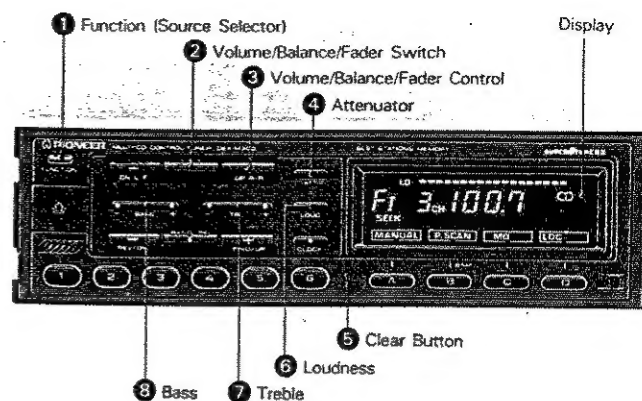
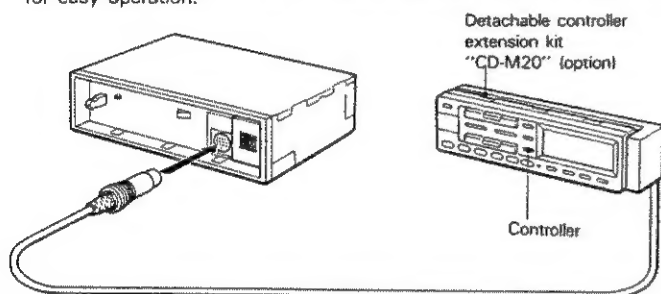
- Attempting to replace the controller into the main unit with the contacts of the controller covered can damage the main unit contacts. Be sure that the contact cover of the controller is open before trying to replace it into the main unit.
- Do not touch the contacts of the main unit when the cover is open. Doing so can damage them.

Precautions When Handling the Controller

- Do not leave the controller in any area exposed to high temperatures or direct sunlight.
- Do not drop the controller or otherwise subject it to strong impact.
- Do not allow such volatile agents as benzene, thinner, or insecticides to come into contact with the surface of the controller.
- Never try to disassemble the controller.

Using the Detachable Controller Extension Kit

The optionally available CD-M20 detachable controller extension kit makes it possible to locate the controller in a position for easier operation or easier installation. It also lets you locate the main body of the unit under a front seat, such like a hideaway unit, with the controller installed in a location for easy operation.



Using the Clear button

Once all wiring is complete, press Button ⑤ with a thin, pointed object. Though not a normal occurrence, the microprocessor which controls the operation of this unit can be affected by electrostatic noise. This generally is indicated by such symptoms as no power being supplied when you switch the unit on, failure of the buttons and controls, or an abnormal display. Should this happen, press Button ⑤ with a thin, pointed object to reset the microprocessor. Note that doing so also resets all audio controls, so you will have to make any desired settings again. This operation deletes all memory contents, such as frequencies stored in the preset memory.

Switching Power ON

Press Button ❶ to switch power ON and the tuner display will appear. Press Button ❶ again to switch power OFF.

- If the optional CDX-M100 Multi-Play CD Player is included in the system, each press of Button ❶ will switch to the following operations: Multi-Play CD player → Tuner → OFF

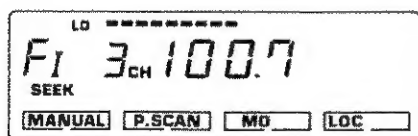
Adjusting Volume, Balance and Fader

Each press of Button ❷ changes the display and the function of Button ❸ as follows:

Volume → Balance → Fader

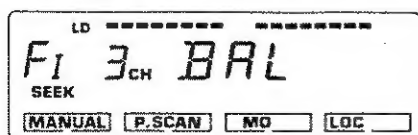
Adjusting Volume

Pressing the (+) side of Button ❸ increases volume, while the (-) side decreases volume.



Adjusting Balance

Pressing the (+) side of Button ❸ shifts the balance to the right speaker, while the (-) side shifts to the left speaker.



Adjusting the Fader

This function controls the balance between the front and rear speakers of a 2-amp/4-speaker system. Pressing the (+) side of Button ❸ shifts the balance to the rear speakers, while the (-) side shifts to the front speakers.



Adjusting Bass and Treble

Adjusting Bass

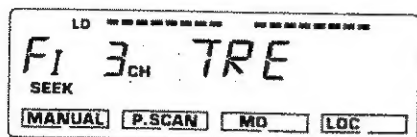
Pressing the (+) side of the Button ❸ increases bass, while the (-) side decreases bass.



Using the Tuner

Adjusting Treble

Pressing the (+) side of the Button 7 increases treble, while the (-) side decreases treble.



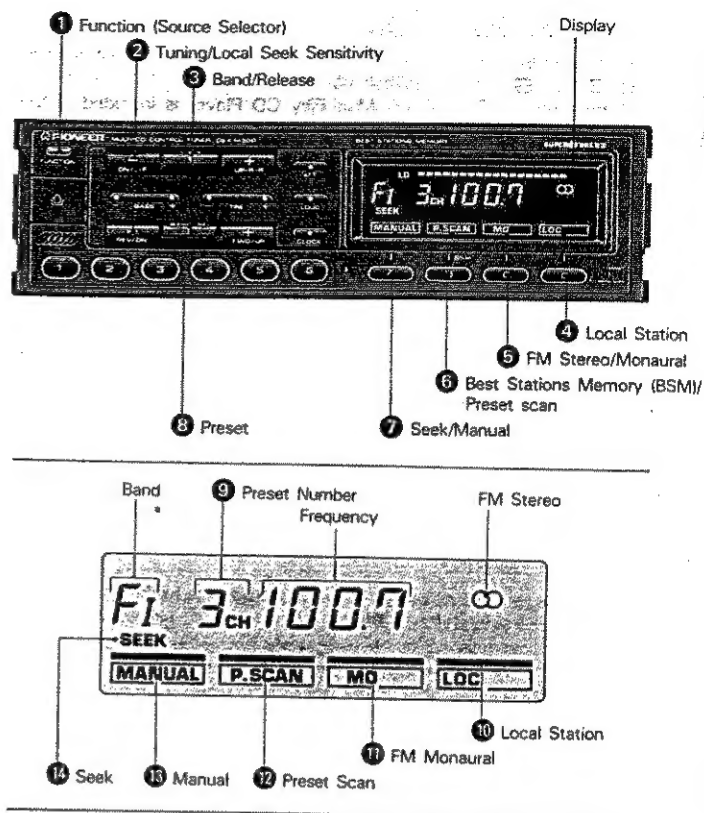
- Balance, fader, bass and treble settings are indicated by blocks at the top of each respective display. When you are adjusting these settings, the indicator will stop at the center setting. Also, the volume display will automatically return about five seconds after you finish making an adjustment.

Using the Loudness function

Press Button 6 and the "LD" indicator will appear on the display. This "loudness" function enhances both the high and low ranges of sound to give even more power to output even at low volumes.

Using the Attenuator

Pressing Button 4 cuts output to about 1/10 of the current volume setting (indicated by a flashing volume level on the display). Pressing Button 4 again restores output to full volume.



1 Press Button 1 to change the display to the Tuner Mode.

2 Press Button 3 to select a band.

$F_I \rightarrow F_{II} \rightarrow F_{III} \rightarrow A$
(FM1) (FM2) (FM3) (AM)

3 Use Seek Tuning to tune in a frequency.

Confirm that the "SEEK" indicator 14 is shown on the display (if not, press Button 7).

Press the (+) side of Button 2 to automatically tune in the next higher receivable frequency, and the (-) for a lower frequency.

4 Adjust volume and tone (see page 4).

5 Assign the tuned frequency to one of the buttons in Bank 8 (Preset Memory).

Press and hold down one of the buttons in Bank 8 for at least two seconds. The frequency is assigned to the selected button when the preset number 9 stops flashing on the display. Up to 18 FM stations (6 each for FI, FII, and FIII), and six AM stations can be assigned to the Preset Memory buttons in Bank 8.

6 Once a frequency is assigned to a button in Bank 8, you just need to press that button to tune it in.

This also causes the number of the button pressed to appear at Position 9 on the display.

Preset Scan Tuning

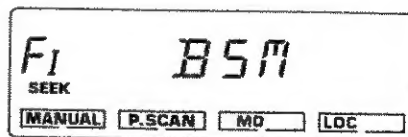
This function lets you automatically monitor the stations assigned to the Preset buttons.

1. Press Button 6 and a bar will appear at Position 12 on the display. Each station assigned to the buttons in Bank 8 will be automatically tuned in for about eight seconds each.
2. When you hear a station that you like, press Button 6 again to cancel Preset Scan Tuning and remain at that station.

BSM (Best Stations Memory)

This function automatically locates stronger stations and automatically assigns their frequencies to the buttons in Bank 8, from strongest to weakest. It comes in handy when trying to find local stations while driving.

1. Press Button 4 and select a band.
2. Hold down Button 6. After about two seconds, a "beep" will sound to signal that the BSM search has started. At this time, "BSM" will appear on the display.



3. The frequency display will return once BSM search is complete, and frequencies are assigned to buttons 1 through 6 in Bank 8.
- At the end of the BSM search, the displayed frequency is that assigned to Button 1 of Bank 8.
- If there are fewer than six strong stations in the area, some of the buttons in Bank 8 will not be assigned frequencies, so they will retain any frequencies assigned to them previously.

- BSM search may take as long as 30 seconds in areas where there are few strong stations.
- You can cancel BSM search by pressing Button ③.

Manual Tuning

Use manual tuning when stations are too weak to be picked up by Seek Tuning.

1. Press Button ⑦ and a bar will appear to Position ⑩ on the display.
2. Each press of the (+) side of Button ② increases the frequency at 0,2 MHz steps in the FM band, 10 kHz in the AM band. Pressing the (-) side of Button ② decreases the frequency. Holding down either side of Button ② changes the frequency at high speed.
- FM frequencies are tuned in 50 kHz steps and AM frequencies in 9 kHz steps after the tuning steps are changed.

Switching between FM Stereo and Monaural

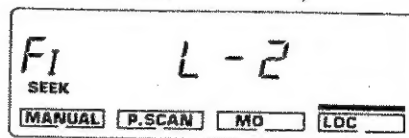
Generally, it is best to allow the "Super Tuner III" function to automatically set the optimum listening conditions. When there is a large amount of noise, you can press Button ⑤ for clearer, monaural reception (bar shown at Position ⑪ on the display).

Adjusting Seek Sensitivity

The Seek Tuning function of this tuner lets you select between a Local setting for reception of strong stations only, and a DX (distant) setting for reception of weaker stations. The Local setting can also have four Seek Tuning sensitivity levels for FM and two levels for AM to match local conditions.

Changing the Local Seek Sensitivity

1. Use Button ③ to select a band.
2. Hold down Button ④ for more than two seconds to change to the local seek sensitivity display.



(Example: L-2)

3. While still holding down Button ④, press the (+) side of Button ② to increase the sensitivity level, and the (-) side to decrease the level as shown below

FM : L-1 ⇄ L-2 ⇄ L-3 ⇄ L-4

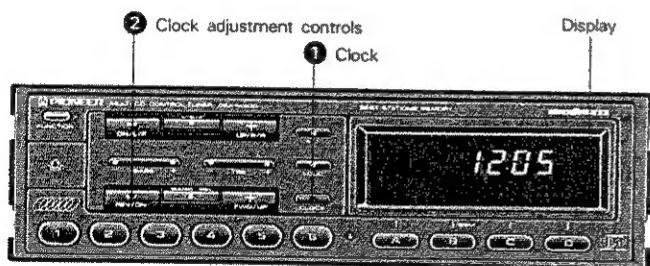
AM : L-1 ⇄ L-2

The L-4 setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations.

Switching Between Local and DX

Press Button ④ to switch between Local and DX (distant) Seek Tuning. The local setting is selected when there is a bar at Position ⑩ on the display, while DX is selected when there is no bar.

Using the Clock Display



Displaying the Time

The clock is displayed while Button ① is depressed.

Adjusting the Time

Adjusting the Hours


While holding down Button ①, press the (–) side of Button ② to adjust the hour setting of the clock. Each press of Button ② advances the hour setting by one hour, and holding it down advances the setting at high speed.

Adjusting the Minutes

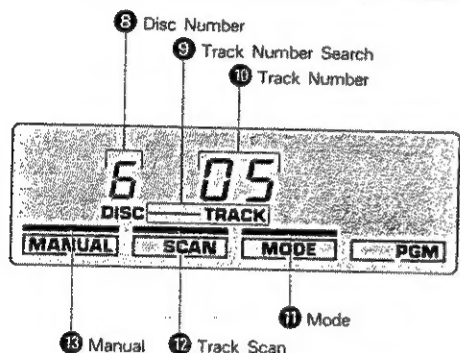
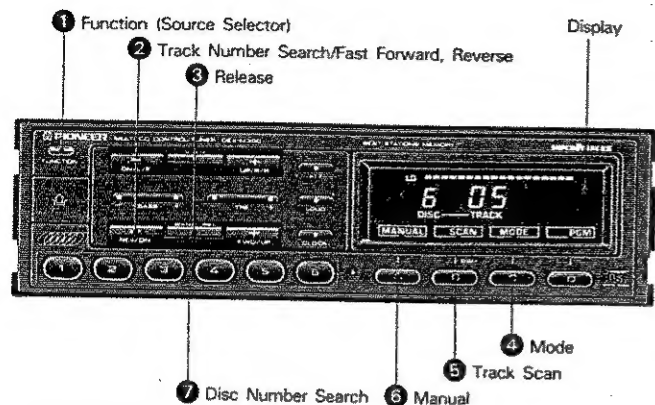
While holding down Button ①, press the (+) side of Button ② to adjust the minute setting of the clock. Each press of Button ② advances the minute setting by one minute, and holding it down advances the setting at high speed.

Precautions When Using the Multi-Play CD Control

- This model can be used as controller when an optionally available multi-play CD player (CDX-M100) is included in the system.
- See pages 10 through 14 for details on operation procedures.
- The Owner's Manual for the multi-play CD player does not contain an explanation of the CD controls for this unit. Read this Owner's Manual for details on proper operation and keep it handy for later reference.
- Immediately after the multi-play CD player is connected to the system, it may not operate properly (i.e. the system will not enter the multi-play CD player mode when you press the function button). In this case, press the clear button of the main unit and the clear button of the multi-play CD player, and attempt operation again.
- An *Err* (error) indicator is shown on the display and operation of the system becomes impossible when there are no discs in the magazine or when the discs are loaded into the magazine with their labels facing upwards. Whenever this message appears, remove the disc magazine and check the discs.
- The indicator *HHHH* appears on the display and playback is automatically cut when the temperature around the multi-play CD player becomes too high. This protects the laser mechanism from serious damage. Listen to the radio until the temperature returns to normal.

The Magazine Type Multi-Play CD players with  mark and the Magazines with the same mark are compatible for 5-inch (12 cm) discs.

Playing Compact Discs



1 Press Button **1** to change the display to the Multi-Play CD player mode and to begin disc play.

Each press of Button **1** changes the mode as follows:
Multi-Play CD player → Tuner → OFF

2 Use the Disc Number Search function to select a disc.

Select the desired disc by pressing one of the buttons in Bank **2**. The number of the disc selected appears at Position **8** on the display.

- If the number at Position **8** on the display does not change when you press a button in Bank **2**, it means that there is no disc loaded in that tray.

3 Use Track Number Search to select a track.

Confirm that "--TRACK" is shown at Position **9** on the display. If not, press Button **6**. Press the (+) side of Button **2** to increase the number at Position **10**, or the (-) side to decrease the number. Holding either side of Button **2** down, changes the track number at high speed.

4 Adjust volume and tone (see page 4).

5 To stop disc play, press Button **1**.

You can restart disc play from the beginning of the track at which play was stopped by pressing Button **1**.

Note:

- After you press a Button in Bank **2**, it may take some time before play begins due to the time necessary to load and set the disc in the mechanism.
- The display counts down the number of seconds between tracks if the spacing is rather large (-02, -01).

Using Music Repeat and Random Play

The display changes as follows with each press of Button ④:

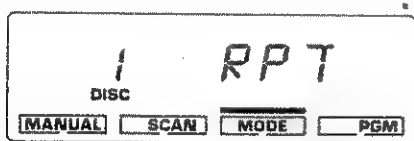
RPT → RA.P → normal

A bar appears at Position ① on the display when Music Repeat or Random Play is selected.

Music Repeat

This function lets you listen to a track as many times as you wish.

1. While the track you want to repeat is playing, press Button ④ so that "RPT" is shown on the display. Now the track will repeat until the Music Repeat function is cancelled.



2. To cancel Music Repeat, press Button ④.

- When Music Repeat is no operational, the compact discs contained in the magazine will play sequentially from beginning to end, and then start from disc 1 again.

Random Play

This function uses a built-in microprocessor to randomly select tracks from the current disc for playback.

1. While a disc is playing, press Button ④ so that "RA.P" is shown on the display. Once play of the current track is complete, the microprocessor will randomly select the next track..



2. To cancel Random Play, press Button ④.

- Random Play will only select tracks on the disc that is currently playing.
- Since tracks are selected at random, it is possible that the same track may be played twice in succession.

Using Track Scan

This functions lets you scan through the tracks on a disc by playing only the first ten seconds of each track.

1. While a disc is playing, press Button ⑤ so that a bar appears at Position ② on the display.
 2. To cancel Track Scan and continue play at the current track, press Button ④ or Button ⑤.
- After Track Scan plays through all of the tracks, disc play resumes from the beginning of the track from which Track Scan was started.

Using Fast Forward and Reverse

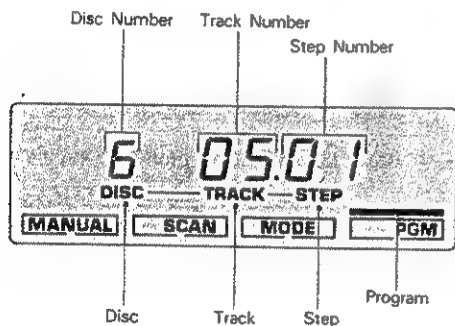
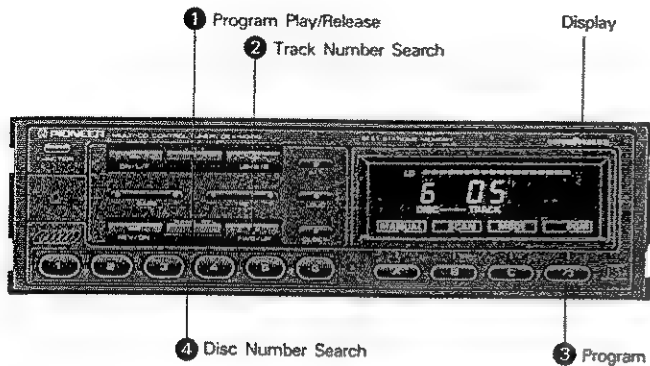
1. While a disc is playing, press Button ⑥ so that a bar appears at Position ③ on the display. At this time the display will show the amount of elapsed disc play time.



2. Press the (+) side of Button ② for fast forward, and the (-) side for reverse.

- Sound is output during fast forward and revers operations.

Using Program Play



This function lets you program the play sequence of all of the tracks contained on the compact discs loaded in the magazine.

- Up to 32 selections can be programmed for a single magazine.
- Up to 16 different magazines (max. 32 selections per magazine) can be programmed individually. If you program more than 16 magazines, old programs are automatically replayed by new ones.
- Automatic Magazine Program Selection (AMPS) retrieves the right program from the memory automatically, as soon as a pre-programmed magazine is loaded. Pre-programmed magazines are identified using the CD in the tray 1 of the magazine. Therefore be sure that tray 1 contains a disc.
- The procedures for programming and changes must be performed within ten seconds after you press a button (while "DISC-TRACK" and "PGM" are flashing on the display). If you take longer than 10 seconds, you must start the procedure from the beginning again.

Programming and Playback

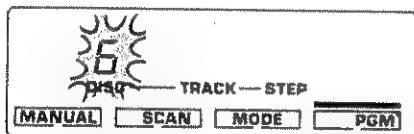
Example: Program the first step for play of Track 5 on disc 6.

1. While a disc is playing, press Button ②.



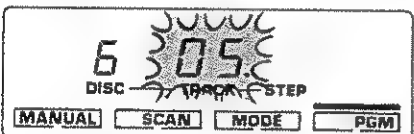
Bar appears over "PGM", and "—STEP" appears on the display.

2. Press Button **6** in Bank **6**.

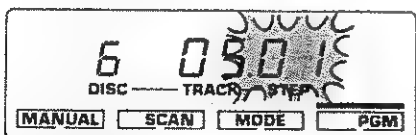


Indicates "Disc 6".

3. Use Button **2** (+/-) to set the track number to "05".



4. Press Button **3** to complete one programming step.



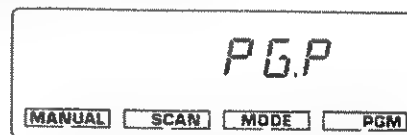
Indicates "Step 1".

- Procedures 2, 3 and 4 above can be repeated until a maximum of 32 steps are programmed.
- Pressing Button **3** after selecting a disc in procedure 2 above programs all of the tracks contained on the selected disc for playback.



"AL" indicates all tracks.

5. Once programming is complete, press Button **1** to begin play in the sequence contained in memory.



Play begins after "PG.P" is displayed.

6. To cancel Program Play, press Button **1** again. To resume Program play, press Button **3** followed by Button **1** within ten seconds.
- Program Play returns to the first step in the programmed sequence when it reaches the end of the program.
 - Pressing Button **2** during programmed play makes it possible to search for a specific step number from among the programmed selections.

Modifying a program

Use the following procedure to make changes in a program that has already been stored in memory.

Example: Change the Step 5 to Track 7 on disc 3.

1. While a disc is playing, press Button ③, and "Step 1" of the program will appear on the display.

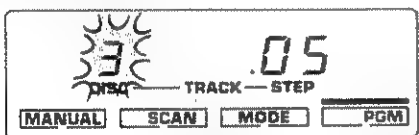


2. Press Button ④ until "Step 5" is displayed.

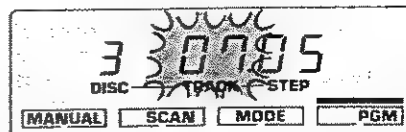


"Step 5" display.

3. Press button ③ in Bank ④.



4. Use Button ② (+/-) to set the track number to "07".



5. Press Button ⑤. Now Step 5 contains the newly programmed data, and the display shows "Step 6".
- Procedures 2, 3, 4 and 5 above can be repeated to modify multiple steps.
6. Press Button ①. Play according to the newly modified program will begin after "PG.P" appears on the display.

Deleting a Program

Use the following sequence to delete the entire program for a magazine.

1. While a disc is playing, hold down Button ③ for at least two seconds. When "PG.C" appears on the display, the entire program has been deleted.

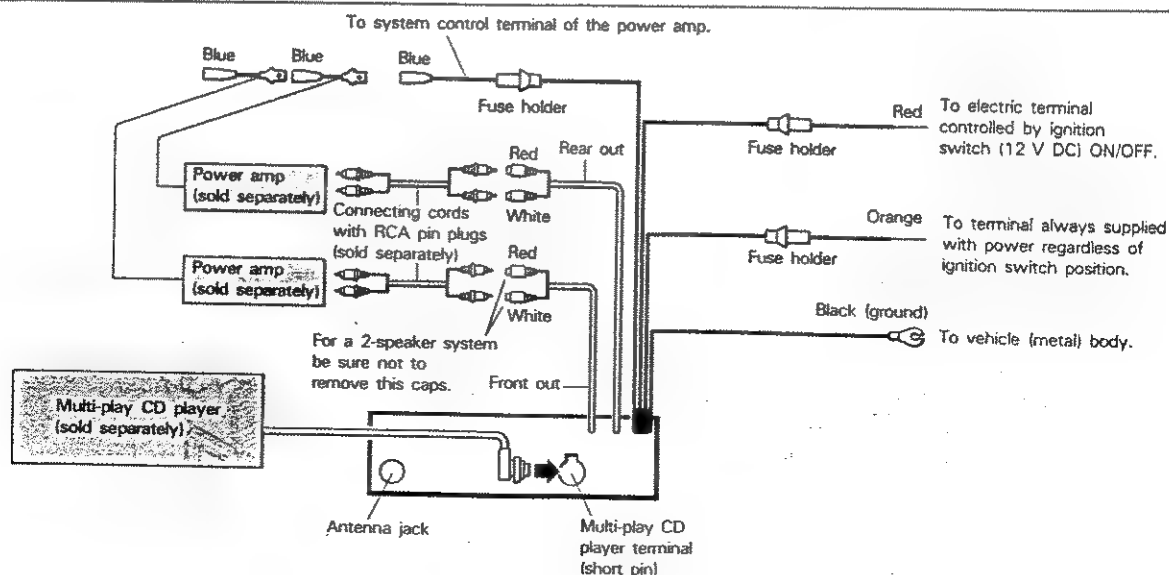


2. When you release Button ③ after deleting a program, "DISC-TRACK" and "PGM" will be flashing on the display. You will be able to enter a new program by beginning input within ten seconds. Otherwise, a normal display appears.
- The track playing when you delete the program continues to play after the deletion, followed by other tracks in their normal (unprogrammed) sequence.

Connecting the Units

- Before making final connections, make temporary connections then operate the unit to check for any connecting cord problems.
- Refer to the owner's manual for details on connecting the various cords of the power amp and other units then make connections correctly.
- Be sure to connect the memory power supply lead (orange) to a terminal that is always supplied with power regardless of the vehicle's ignition switch position. If this connection is made incorrectly or is forgotten, the unit will not work at all.

- Don't pass that orange lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation and cause a very dangerous short.
- Always leave short pin in place when Multi-play CD player terminal is not used.
- For 2-speaker systems, wire the rear output cord to the power amp.



Installation

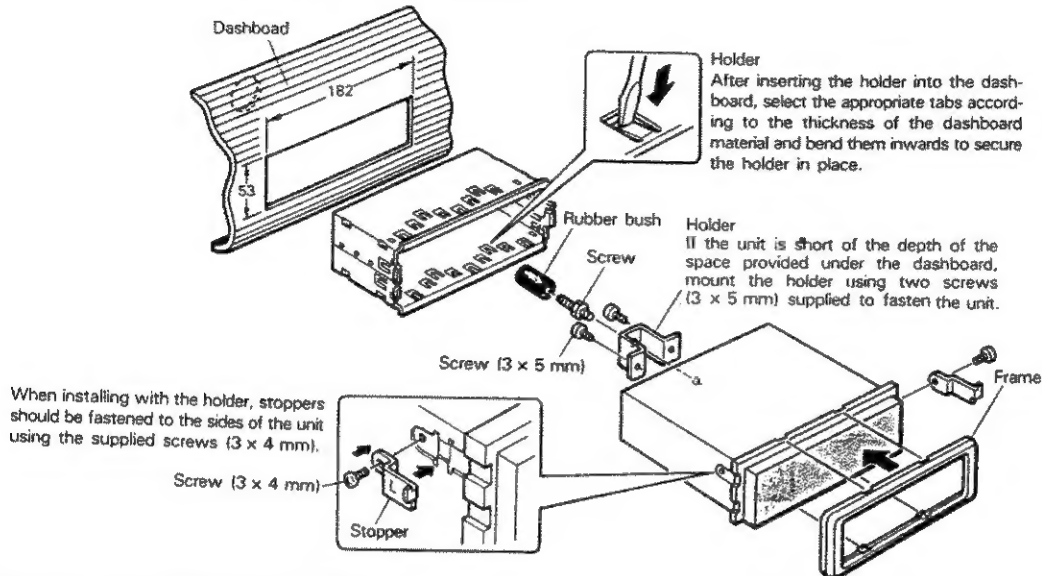
DIN Front/Rear-mount:

This unit can be properly installed either from "Front" (conventional DIN Front-mount) or "Rear" (DIN Rear-mount installation, utilizing threaded screw holes at the sides of unit chassis). For details, refer to the following illustrated installation methods.

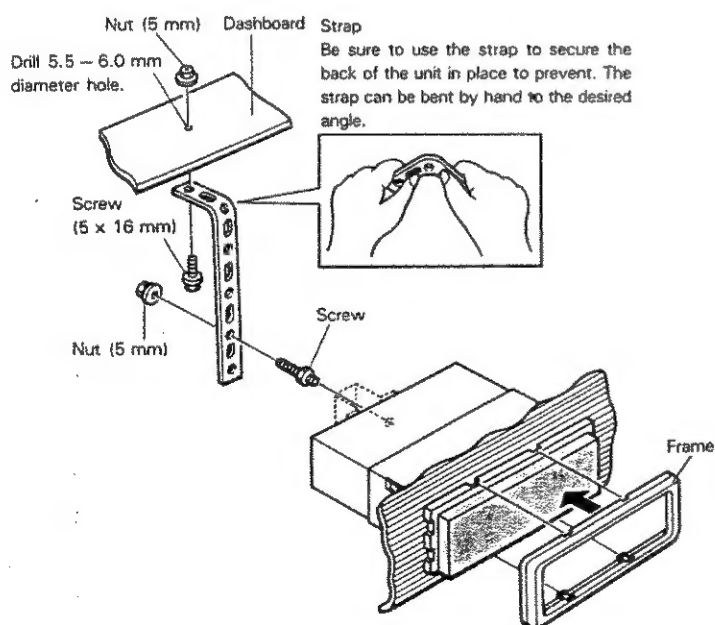
Note:

- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.

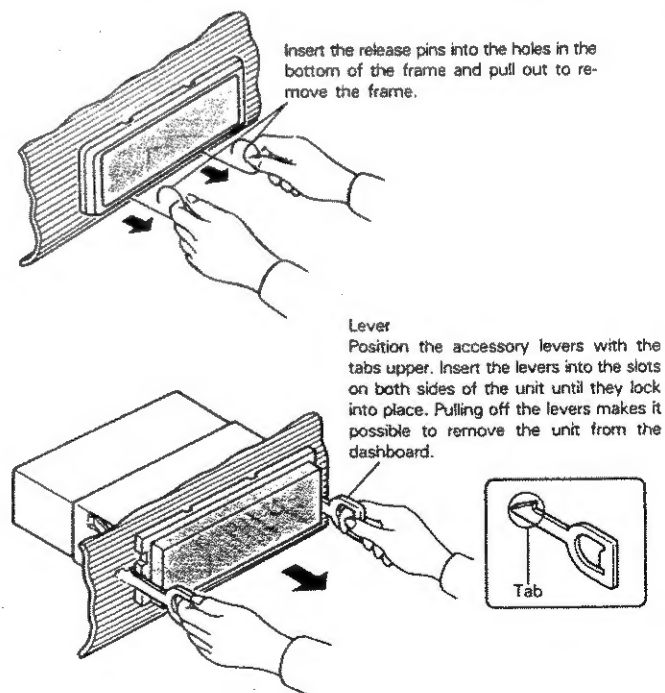
Installation with the rubber bush (DIN Front-mount)



Installation without the rubber bush (DIN Front-mount)



Removing the unit (DIN Front-mount)



Precautions

Installation using the screw holes on the sides of the unit (DIN Rear-mount)

Fastening the unit to the factory radio mounting bracket

For the screw holes marked (A) in Fig. 1, use 4 × 8 mm screws. For the screw holes marked (B), use 5 × 8 mm screws.

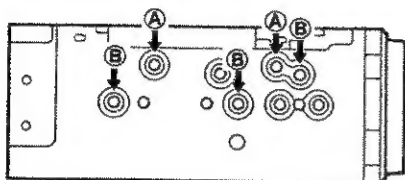
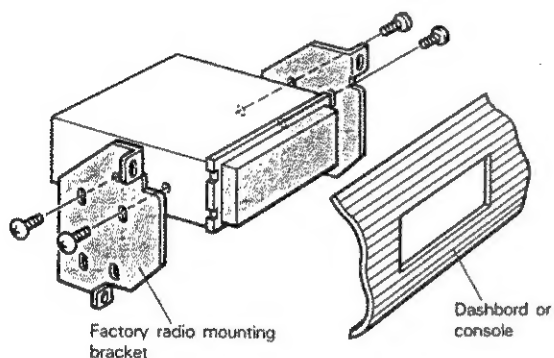


Fig. 1



- To assure proper operation of the unit, keep the vehicle interior temperature within a normal range using the vehicle's air conditioner or heater.
- When replacing fuses, be sure to use only fuses of the capacity prescribed on the fuse holder.
- Frequencies and times stored in memory can be lost when the vehicle's battery is replaced. If this should occur, reprogram the preset memory.
- When driving your vehicle, be sure to keep the volume of the unit set low enough to allow you to hear sounds coming from outside.

In case of trouble

When the unit does not operate properly, contact your dealer or the nearest authorized PIONEER Service Station.

Specifications

General

Power source	14.4 V DC (10.8 — 15.6 V allowable)
Grounding system	Negative type
Dimensions (chassis)	178(W) × 50(H) × 122(D) mm [7 (W) × 2 (H) × 4-3/4 (D) in]
(controller)	169(W) × 45(H) × 20(D) mm [6-5/8 (W) × 1-3/4 (H) × 3/4 (D) in.]
Weight	1.2 kg (2.6 lbs.)
Tone controls (bass)	± 10 dB (100 Hz)
(treble)	± 10 dB (10 kHz)
Loudness contour	+ 10 dB (100 Hz), + 7 dB (10 kHz) (volume: - 30 dB)
Preout output level	500 mV
Output impedance	1 kΩ

FM tuner

Frequency range	
(0.2 MHz channel step)	87.9 — 107.9 MHz
(50 KHz channel step)	87.5 — 108 MHz
Usable sensitivity	12 dBf (1.1 μV/75 Ω, mono)
50 dB quieting sensitivity	17 dBf (1.9 μV/75 Ω, mono)
Signal-to-noise ratio	70 dB (IHF-A network)
Distortion	0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response	50 — 15,000 Hz (± 3 dB)
Stereo separation	40 dB (at 65 dBf, 1 kHz)
Selectivity	70 dB (2ACA) (± 400 kHz)

AM tuner

Frequency range	
(10 kHz channel step)	530 — 1,620 kHz
(9 kHz channel step)	531 — 1,602 kHz
Usable sensitivity	18 μV (25 dB) (S/N: 20 dB)
Selectivity (10 kHz channel step)	50 dB (± 10 kHz)
(9 kHz channel step)	50 dB (± 9 kHz)

These specifications were determined and are presented in accordance with specification standards established by the Ad Hoc Committee of Car Stereo Manufacturers.

Note:

Specifications and the design are subject to possible modification without notice due to improvements.